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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/605,460

09/30/2003

SL OUYANG

9842-US-PA

2459

31561

7590

11/27/2006

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE

7 FLOOR-1, NO. 100

ROOSEVELT ROAD, SECTION 2

TAIPEI, 100

TAIWAN

EXAMINER

PATEL, GAUTAM

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/605,460

Applicant(s)

OUYANG, SL

Examiner

Gautam R. Patel

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-9,11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-9, 11, and 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### Response to Amendment

1. This is in response to amendment filed on 10/30/06.
2. Claims 1-2, 5-9, 11, and 13-16 remain for examination.

### NOTES/REMARKS

3. It is requested that the Applicants be mindful of sending amendments which has font size 12 or bigger. The Examiner would like to thank that original batch was good bit bigger than size 12 and was easy to read these amendments and remarks are little bit too small for easy reading.
4. Terminal disclaimer has been approved and double patenting has been withdrawn.

### Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-9, 11, and 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee et al., US. patent 6,826,137 (hereafter Lee), in view of Okazaki et al., US. patent 5,969,651 (hereafter Okazaki).

As to claim 1, Lee discloses the invention as claimed [see Figs. 1 and 7], including extracting a first batch, looking up a modified decoding table and outputting the second batch of data, comprising the steps of:

extracting a first batch of data encoded in a first bit format from a serial data;  
looking up a modified decoding table [look-up table are inherently present in EFM coding] to convert the first batch of data into a second batch of data encoded in a second bit format, wherein the modified decoding table includes a data conversion for a first batch of data that does not conform to a standard modulation rule; and

Art Unit: 2627

outputting the second batch of data [col. 6, lines 22-52].

Lee discloses all of the above elements, including extracting first and second batch of data and converting them and performing EFM coding.

Lee does not specifically disclose that first batch has less than two and more than ten first type of logic bits between two neighboring second type of logic bits.

However, 3T and 11T recording is well known in the art that almost all encoding is done in CD/DVD discs.

Also more importantly Okazaki clearly discloses:

the first batch of data has less than two and more than ten first type of logic bits between two neighboring second type of logic bits [col. 2, lines 19-41].

Both Lee and Okazaki are interested in improving encoding from first batch to second batch.

One of ordinary skill in the art at the time of invention would have realized that the encoding of Lee's system would have been sensitive to uniform recording during high and low level of recording. Also setting these kind of ten bits between two type second type of bits is how 14 to 8 bits conversion [EFM coding] inherently works.

Therefore, it would have been obvious to have used a ten bit surrounded by two different bits in the system of Lee as taught by Okazaki because one would be motivated to record smoothly during high level and low level of recording in the system of Lee and provide better signal controls and improve quality of the signals during two different condition of recording [col. 2, lines 31-41; Okazaki].

6. The aforementioned claim 2, recites the following steps, inter alia, disclosed in Lee:  
the first bit format is encoded in 14 bits and the second bit format is encoded in 8 bits [col. 6, lines 41-50].

7. The aforementioned claim 5, recites the following steps, inter alia, disclosed in Lee:  
the optical system is able to read data from a compact disk read-only-memory (CD-ROM) [col. 4, line 59 to col. 5, line 8].

Art Unit: 2627

1. The aforementioned claim 6, recites the following steps, inter alia, disclosed in Lee:  
the standard modulation rule is an eight-to-fourteen modulation (EFM) and the standard modulation rule follows an EFM standard [col. 4, lines 37-58].
2. The aforementioned claim 7, recites the following steps, inter alia, disclosed in Lee:  
the modified decoding table comprises transformation entries conformable to the EFM standard [col. 4, lines 37-58].
3. As to claims 8-9 and 14-16, they are method claims corresponding to claims 1-2 and 5-7 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 1-2 and 5-7 respectively, above.
4. The aforementioned claims 11 and 13, recites the following steps, inter alia, disclosed in Okazaki:  
setting the number of first type of logic bits between two neighboring second type of logic bits to two when the first batch of data encoded in 14 bits has less than two first type of logic bits between two neighboring second type of logic bits [col. 2, lines 19-41].
8. Applicant's arguments with respect to claims 1-2, 5-9, 11, and 13-16 have been considered but are moot in view of the new grounds of rejection.
9. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).  
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2627

**Contact information**

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

  
**GAUTAM R. PATEL**  
**PRIMARY EXAMINER**

Gautam R. Patel  
Primary Examiner  
Group Art Unit 2627

November 21, 2006